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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Ex Parte: CC Docket Nos. 01-338, 96-98, and 98-147

Dear Ms. Dortch:

At the request of staff, Verizon provides this further clarification on Verizon's high capacity loop provisioning practices.

The dispute about Verizon's provisioning policy is best understood in the context of the larger debate about whether the Commission should continue to require ILECs to provide high capacity loops such as DS-1s and DS-3s on an unbundled basis. While CLECs historically have invested heavily in their own fiber optics and other facilities to provide high capacity services, more recently, they are increasingly demanding unbundled elements instead, even in the most competitive metropolitan areas. In fact, carriers even demand unbundled elements in locations such as the K Street corridor in downtown D.C., where any motorist can testify to the scope of competitive facilities deployment. And those carriers increasingly go so far as to demand that Verizon build new high capacity facilities solely to make them available as unbundled elements at prices that are below what they (or any carrier) could build them for.

The threshold question in this proceeding is whether high capacity loops should be unbundled in the first place. As Verizon has explained at length elsewhere, as a general matter, they should not.[1] Indeed, competing carriers already have deployed extensive high capacity facilities of their own. And where they have not yet done so, those carriers have readily admitted that they have successfully entered the market using special access services from incumbents or

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[1] See Letter from William P. Barr to Honorable Michael Powell dated October 16, 2002.

other providers. Under these circumstances, making it clear that these high capacity facilities do not have to be unbundled will restore incentives for carriers to invest in facilities of their own.

Still, until the Commission decides this threshold issue, Verizon's policy for provisioning unbundled network elements complies fully with the Act. Pursuant to that policy, Verizon will provide unbundled network elements, including DS-1s and DS-3s, where the facilities necessary to provision the service requested exist and are currently available. Furthermore, although Verizon is not required to construct network elements at the request of a CLEC, Verizon does perform some construction work to provide high capacity loops even where not all of the facilities necessary to provision the service are available in Verizon's assignable inventory.

While we understand that some CLECs have complained to the Commission about this policy, no one seriously claims that Verizon is required to construct network facilities just to make them available to CLECs as UNEs. Nor could they. The Commission has made clear that, "the Act does not require [Verizon] to construct network elements ... for the sole purpose of unbundling those elements for ... other carriers."[2] And the Commission has steadfastly adhered to this basic principle.[3] This ruling, moreover, is entirely consistent with and, indeed, required by the portion of the Eighth Circuit's decision in *Iowa Util. Bd. v. FCC* that has never been challenged, where the Court explained that "[s]ubsection 251(c)(3) implicitly requires unbundled access only to an incumbent LEC's *existing* network ...." As a result, there is no real question that Verizon is not required to deploy new copper or fiber cable or to install new equipment in its central offices or elsewhere solely to unbundled the new facilities or equipment. That question has been definitively resolved.

The only real question in this debate then is where to draw the line in terms of defining whether or not facilities exist and what constitutes construction. In that regard, Verizon has adopted reasonable policies under which Verizon has and will continue to do more than is required by the Act.

When a CLEC places an order for a UNE loop, Verizon checks to determine whether the facilities necessary to provision the service exist and are available to provision the order. If the necessary facilities exist, Verizon will provision the UNE loop requested. Where the facilities necessary to provision the service requested do not exist, however, construction is required.

Although Verizon is not required to do so, Verizon does perform some construction work in order to provide CLECs high capacity loops where facilities do not exist. This work includes ordering and installing line cards in existing multiplexers and equipment shelves at the central office and at the customer's location; cross connecting existing common equipment, such as multiplexers, to the copper or fiber facility being used; placing doublers in an existing apparatus case where necessary to provision the service; or installing a network interface device at the customer's premise. In addition, when construction of the facilities necessary to provision the service requested is already planned, Verizon will provision the UNE requested once construction of those facilities has been completed.

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[2] See Virginia Arbitration Non-Cost Order ¶ 468.

[3] See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 11 FCC Rcd 15499, ¶ 451 (1996) (limiting "the provision of unbundled interoffice facilities to existing incumbent LEC facilities."); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, 15 FCC Rcd 3696, ¶ 324 (1999) (same).

Verizon, however, does not (and is not required to) construct network elements solely for the purpose of unbundling those elements where the construction work involves installing new copper or fiber cabling, equipment, or electronics. Although some CLECs have suggested that this work involves relatively minor upgrades or modifications to the network; in fact, as the descriptions below indicate, substantial construction activity is required often involving multiple work groups, including third-party vendors, and an additional outlay of capital. Specifically, the following situations require construction work that Verizon is not required to (and does not) undertake:

B. DS-1 Over Copper

1. No Available Copper Spares.

In the absence of available fiber facilities, spare copper facilities must exist before Verizon can provision a DS-1 loop. Although Verizon will make reasonable attempts to clear defective cable pairs that exist in the end user's service terminal, if Verizon cannot clear defective facilities and if no other spare facilities exist, construction would be required to add copper facilities at the end user location before a DS-1 could be provisioned. To add these facilities, Verizon would have to actually lay copper cable to the end user's location, work that no one seriously argues Verizon is required to do.

This construction work includes planning, designing, and installing or rearranging copper cables to the end user's location. Planning engineers identify the nearest available copper feeder facilities that can be allocated to the end-user location. The Planning engineer will go as close to the source of the copper feeder facilities, typically the central office, as necessary for the installation of new copper facilities to the end user location. Design engineers then do the detailed design work required to extend those feeder facilities, and to install any additional copper distribution facilities that might be required, to the end users location. They also identify structural requirements – manholes, pole licensing/placement/rearrangements, building entrance conduit, terminal space requirements, right of way requirements, etc. – for the placement copper facilities.

Once the detailed design is complete, physical construction can begin and typically includes:

- Securing access to manholes, poles and/or buried cable;
- Constructing new manholes, poles and conduit;
- Securing permits and/or rights of way;
- Establishing a safe work area in public rights of way;
- Installing the cable in or on the new/existing structure;
- Installing terminals; and
- Splicing cable pairs in manholes, on poles, in buried enclosures and in buildings

This construction activity creates new copper facilities to the end user location. Without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 12% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states[4] were rejected for this reason.

2. No Apparatus/Doubler Case.

For DS-1 loops greater than 12,000 feet, a doubler, which is also known as a repeater, regenerator, or range extender, is required to amplify the HDSL signal. Doublers are often used to "boost" a signal traveling over long distances. These doublers are housed in an apparatus or doubler case that is spliced into the loop at a location where the electrical properties of the copper loop no longer support the HDSL signal. The exact location is dependent on the loop make up (gauge, average ambient temperature and sheath type) of the cable pair but is typically 9000-12,000 feet. Accordingly, if the cable pairs or loop available for assignment to the end user's serving terminal are greater than 12,000 feet and do not contain an apparatus case, construction work would be required to add this new equipment before a DS-1 could be provisioned.[5]

The construction work required to install an apparatus case is complex. As an initial matter, the cable sheath containing the pairs must be secured and spliced into. The work required to do this depends on the physical location (building, street, right of way) and the cable plant type (aerial, underground, direct buried) of the apparatus design location. Aerial cable is typically accessed using bucket trucks after complying with any local traffic control requirements.[6] Direct buried cable is accessed, where possible, through splice enclosures that come out of the ground at splice points determined by the cables' original design/placement. If the apparatus design location does not coincide with a nearby existing splice location, the cable sheath must be marked (via Dig Safe procedures) and exposed, consistent with local traffic control regulations. Underground cable sheaths must be accessed through a manhole. In addition to complying with local and state requirements and regulations,[7] the manhole must be pumped and filtered of any water and sediment and then tested and cleared of any hazardous materials or gases. Provided there are no safety issues, the manhole can be entered and the splicing work can proceed.

Once the cable sheath is secured, access to the cable pairs within the sheath is accomplished either by entering an existing splice (if one exists) or splicing into the cable – cutting into the cable sheath directly and then pulling slack or adding additional slack cable to create a

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[4] Former Bell Atlantic South includes New Jersey, Pennsylvania, Delaware, District of Columbia, Virginia, West Virginia, and Maryland. Verizon does not have readily available data for the former Bell Atlantic North states but notes that the same policies apply in the former Bell Atlantic North states.

[5] In addition, it is also likely that load coils would need to be removed.

[6] Most municipalities require traffic control and a police detail when placement of the vehicle will impede traffic flow.

[7] Most municipalities require a police detail for local traffic control before the work can proceed. Similarly, most states require that the Manual on Uniform Traffic Control Devices ("MUTCD") be adhered to. In addition, most States have a Department of Environmental Management requirement to test sediment contents for contaminants. If hazardous materials are present, special removal processes may need to be followed, and Verizon typically contracts this work out to third parties. If no hazardous materials are found, pumping and filtering of the manhole may proceed.

new splice. If the cable is pressurized, as is the case with most underground cable, the sheath also will need to be buffered before this work can begin.[8]

Once the relevant cable pairs within the sheath have been secured, a new apparatus case must be mounted. This apparatus case housing is typically mounted to a wall, pole, or buried enclosure, and the cable stubs to the equipment are connected to the cable pairs in the new splice. Once that is done, Verizon then must order and install the necessary doublers before the service can be provisioned. This construction work, therefore, requires the installation of new equipment, something Verizon is not required to do. And without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 45.2% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

3. No Central Office or Remote Terminal Repeater Equipment.

To provision a DS-1 copper loop facility, there also must be an HDSL Terminal Unit (HTU), also known as a repeater, in both the central office and at the end user's remote terminal location. An (HTU) physically terminates an HDSL connection at both the Central Office and the Remote Terminal and is installed in a repeater shelf. If there are no spare slots in the repeater shelf, in either the central office or the remote terminal, construction work would be required to add new repeater equipment before a DS-1 loop could be provisioned.

This construction work includes planning, designing, and installing new repeater equipment in a Central Office and/or Remote Terminal relay rack, a 10 to 12 foot steel equipment mounting structure.[9] The physical work includes installing the equipment into the relay rack and running cable to appropriate termination points – Digital Cross Connect (DSX) Panels, Digital Access and Cross Connect Systems (DACS), and Distribution Frame/Terminal Blocks – within the Central Office and at the Remote Terminal location.[10] Without the addition of this new equipment, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 4.6% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

4. No Riser Cable or Buried Drop.

Verizon adheres to the Commission's Demarcation Point and Minimum Point of Entry rules to determine the availability of riser/drop facilities. In the event there is no riser cable – vertically placed cable – to a customer location in a multiple floor building, this cable likewise would have to be installed before the facilities necessary to provision the service requested would exist.

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[8] Buffering is a procedure where a temporary bypass air pipe is installed to permit uninterrupted airflow to the field side of the splice in order to prevent cable failures due to water intrusion while the splice work is in progress.

[9] This equipment must be ordered, generally on a 30 day EFI (engineer/furnish/ install) interval, and is installed using outside vendors. The relay rack must also have spare capacity. In the event capacity in the relay rack is exhausted, a new relay rack must be planned, designed and constructed.

[10] This may include running wire to termination points on different floors within the central office. In addition, space constraints at Remote Terminal locations are often limiting factors in the construction of additional capacity.

In many cases, however, there is no way to physically provide cable continuity to the customer. In some buildings, Verizon may not have access to install new riser cable. This can occur when the tenant/end user is located on a floor above the Demarcation Point. Similarly, when a customer has no building entrance structure (pole line or underground conduit) and is served with an existing direct buried facility and that facility is exhausted, there is no physical way to provide additional capacity to the location until those structures are constructed by the property owner.[11] Verizon would then need to build cable facilities from the Rate Demarcation Point to the nearest available spare capacities in much the same way as outlined in part A.1 above. Again, this work requires laying cable, which Verizon is not required to do.

Between January and June 2002, 0.4% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

B. DS-1 and DS-3s Over Fiber.

5. No Fiber or Multiplexer.

To provision a DS-1 loop over fiber, there must be fiber cable and multiplexer capacity in both the central office and at the end user's location. If there is no fiber cable or multiplexer capacity, in either the central office or at the end user's location, construction would be required to add new fiber cable or multiplexers before the DS-1 or DS-3 could be provisioned.

To install fiber cable requires securing access to structures in the underground and aerial plant. This includes manhole and pole procedures as outlined in A.3 above. Fiber optic cable must then be installed in, or on, those structures similar to the physical construction procedures outlined in A.1 above.

Fiber facilities also require specialized splicing operations (fusion splicing, "clean room" conditions) to establish continuity in the fiber. The fiber is terminated in specially designed fiber distribution bays in the central office and fiber trays at the customer location. Once installed, the fiber must be accepted with a series of Optical Time Domain Reflectometer ("OTFR") equipment. Once accepted, the fiber must be connected to an optical multiplexer.

Construction of a new multiplexer at the central office location requires adequate space in an available relay rack. Similarly, installation of a new multiplexer at the end user's location requires both adequate space and a commercial power source for the multiplexer. The installation of a new multiplexer in the central office is performed by third party vendors and is similar to the process described in A.3 above including, ordering the equipment and appropriate common cards, installing the equipment and cards, cabling to the appropriate intermediate termination points in the central office (DSX panels, etc), testing, and updating of inventory systems. The installation of a multiplexer in a remote terminal or end user location involves a similar procedure and is performed by Verizon technicians. Without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 30.5% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

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[11] Pole line Rights of Way (and applicable construction charges), or conduit and/or trenches would have to be delivered by the property owner.

6. No Capacity for the Service Requested on Existing Multiplexer.

Multiplexers deployed in Verizon's network typically may be configured to serve, among other things, both DS-1 and DS-3 services. When multiplexers are initially deployed, an initial muldem on the multiplexer is wired to support either DS-1 or DS-3 services.[12] As orders for that service are received, line cards are placed in slots on the multiplexer to provision the order. Although Verizon is not required to do so, where there are spare slots for the service requested Verizon orders and installs the line cards necessary to provision CLEC UNE loop orders. Once the slots for the line cards are filled, however, no more orders for service can be provisioned until a new muldem is constructed, wired for service, and the line card slots are inventoried.

The type of construction required to create additional multiplexer capacity varies depending upon whether the muldem is configured to serve DS-1 or DS-3 services. To install a muldem to support DS-1 loop orders, significant work is required at both the central office and remote terminal locations. The work is similar at each location. First a Telephone Equipment Order (TEO) is developed and issued to a vendor for the central office work. An Engineering Work Order (EWO) is similarly issued for the remote terminal location, which is performed by Verizon technicians. Central office plug-ins are ordered and the cabling work is scheduled with the vendor. Cable is run from the multiplexer to a DSX panel where 56 wiring terminations are made on the panel. Similar work is done at the remote terminal location.[13] Until this construction work is performed, the facilities necessary to provision the services to not exist and cannot be unbundled.

Between January and June 2002, 3.5% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.[14]

Please associate this notification with the record in the proceedings indicated above. If you have any questions regarding this matter, please call me at (202) 515-2530.

Sincerely,

W. Scott Randolph

cc: Tom Navin
Jeremy Miller
Brent Olsen
Mike Engel

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[12] A muldem is a multiplexer/demultiplexer combination. A typical mulitplexer has multiple muldems. When Verizon installs a multiplexer in its network, it may not wire and activate all muldems in the multiplexer. As additional mulitplexer capacity is needed, additional muldems in the multiplexer need to be wired and activated. This work is performed both by outside vendors and by Verizon technicians.

[13] To install a muldem to support DS-3 loop orders, similar cabling work is required at both the CO and remote terminals but a different plug in configuration is required for DS3 service in a multiplexer.

[14] 3.8% of the rejected orders are not categorized into one of these categories.